

IN THE CLAIMS:

Please amend Claims 1, 22, 4 to 7, 11, 12, 14 to 17, 21, 22, 24 to 27, 31, 36, 41 and 46 as shown below. The claims, as pending in the subject application, now read as follows:

1. (Currently amended) An information processing apparatus that creates print job to be printed by a printing apparatus having an inversion process function [[data]], comprising:

intermediate data converting means for converting print data created by an application to an intermediate code format data and storing said converted intermediate code format data and processing conditions of said print data;

~~editing means for editing the data stored and converted to an intermediate code format by said intermediate data converting means or processing conditions of said print data;~~

~~data creating means for creating print data and processing conditions that implement print processing different from the print data created by said application based on the data edited by said editing means; and~~

detection means for analyzing the processing conditions and detecting a setting of the inversion process function to be executed by the printing apparatus;

preview display controlling means for displaying a preview image of the print processing result in advance based on the print data stored by said intermediate data converting means ~~created by said data creating means~~ and processing conditions; and

job creation means for creating the print job based on the intermediate code format data stored by said intermediate data converting means,

wherein said preview display controlling means displays the preview image reflecting the inversion process to be executed by the printing apparatus, and said job creation means creates the print job on which the inversion process has been not executed, in a case where said detection means detects the setting of the inversion process function.

2. (Currently amended) The information processing apparatus according to claim 1, further comprising editing means for editing the data stored and converted to the intermediate code format data by said intermediate data converting means or processing conditions of said print data; and

data creating means for creating print data and processing conditions that implement print processing different from the print data created by said application based on the data edited by said editing means,

wherein when a plurality of intermediate code format print data is stored, said editing means combines said plurality of intermediate code format print data into a single combined job.

3. (Original) The information processing apparatus according to claim 1, wherein said preview display controlling means acquires layout information from said stored intermediate code format data and previews said print processing result based on said layout information.

4. (Currently amended) The information processing apparatus according to claim 2 [[1]], wherein when a mirroring condition is specified for said stored intermediate code format data, said preview display controlling means makes it possible to preview the data in a mirrored display format based on the editing result from said editing means.

5. (Currently amended) The information processing apparatus according to claim 2 [[1]], wherein when color inversion is specified for said stored intermediate code format data, said preview display controlling means makes it possible to preview the data in a color-inverted display format based on the editing result from said editing means.

6. (Currently amended) The information processing apparatus according to claim 2 [[1]], wherein when said editing means combines a plurality of jobs, said preview display controlling means makes it possible to present[[s]] a preview in a display format in which said combined job is displayed as a single job.

7. (Currently amended) The information processing apparatus according to claim 2 [[1]], comprising print data controlling means for judging whether the print data is created by said application or by said data creating means and controlling the output destination of the print data.

8. (Original) The information processing apparatus according to claim 1, wherein said print data controlling means releases the occupation of the application after said intermediate data converting means stores the converted data.

9. (Original) The information processing apparatus according to claim 1, wherein said intermediate code format data converted by said intermediate data converting means is data that can be edited in accordance with expansion, contraction, layout display, mirroring and color inversion.

10. (Original) The information processing apparatus according to claim 2, wherein the processing of combining the print data by said editing means, the stored data is identified based on identification information obtained by adding an ID to identify the stored data to the logical page ID of said stored data.

11. (Currently amended) An information processing method for creating print job to be printed by a printing apparatus having an inversion process function [[data]], comprising:

an intermediate data converting step of converting print data created by an application to an intermediate code format data and storing said converted intermediate code format data and processing conditions of said print data;

~~an editing step of editing the data stored and converted to an intermediate code format by said intermediate data converting step or processing conditions of said print data;~~

~~a data creating step of creating print data and processing conditions that implement print processing different from the print data created by said application based on the data edited by said editing step; and~~

a detection step of analyzing the processing conditions and detecting a setting of the inversion process function to be executed by the printing apparatus;

a preview display controlling step of displaying a preview image of the print processing result in advance based on the print data stored in said intermediate data converting step created by said data creating step and processing conditions; and

a job creation step of creating the print job based on the intermediate code format data stored in said intermediate data converting step,

wherein said preview display controlling step displays the preview image reflecting the inversion process to be executed by the printing apparatus, and said job creation step creates the print job on which the inversion process has been not executed, in a case where said detection step detects the setting of the inversion process function.

12. (Currently amended) The information processing method according to claim 11, further comprising:

an editing step of editing the data stored and converted to the intermediate code format data in said intermediate data converting step or processing conditions of said print data; and

a data creating step of creating print data and processing conditions that implement print processing different from the print data created by said application based on the data edited in said editing step,

wherein when a plurality of intermediate code format print data is stored, said editing step combines said plurality of intermediate code format print data into a single combined job.

13. (Original) The information processing method according to claim 11, wherein said preview display controlling step acquires layout information from said stored intermediate code format data and executes processing for previewing said print processing result based on said layout information.

14. (Currently amended) The information processing method according to claim 12 [[11]], wherein when a mirroring condition is specified for said stored intermediate code format data, said preview display controlling step makes it possible to preview the data in a mirrored display format based on the editing result from said editing step.

15. (Currently amended) The information processing method according to claim 12 [[11]], wherein when color inversion is specified for said stored intermediate code format data, said preview display controlling step makes it possible to preview the data in a color-inverted display format based on the editing result from said editing step.

16. (Currently amended) The information processing method according to claim 12 [[12]], wherein when said editing step combines a plurality of jobs, said preview display controlling step makes it possible to present a preview in a display format in which said combined job is displayed as a single job.

17. (Currently amended) The information processing method according to claim 12 [[11]], comprising a print data controlling step of judging whether the print data is created by said application or by processing in said data creating step and controlling the output destination of the print data.

18. (Original) The information processing method according to claim 11, wherein said print data controlling step releases the occupation of the application after said intermediate data converting step stores the converted data.

19. (Original) The information processing method according to claim 11, wherein said intermediate code format data converted by said intermediate data converting step is data that can be edited in accordance with expansion, contraction, layout display, mirroring and color inversion.

20. (Original) The information processing method according to claim 12, wherein in the processing of combining the print data in said editing step, the stored data is identified based on identification information obtained by adding an ID to identify the stored data to the logical page ID of said stored data.

21. (Currently amended) A storage medium that stores a program module for a computer to execute an information processing method for creating print job to be printed by a printing apparatus having an inversion process function [[data]], said program module comprising:

an intermediate data conversion module that converts print data created by an application to an intermediate code format data and stores said converted intermediate code format data and processing conditions of said print data;

~~an editing module that edits the data stored and converted to an intermediate code format by said intermediate data conversion module or processing conditions of said print data;~~

~~a data creation module that creates print data and processing conditions that implement print processing different from the print data created by said application based on the data edited by said editing module; and~~

a detection module that analyzes the processing conditions and detects a setting of the inversion process function to be executed by the printing apparatus;

a preview display control module that displays a preview image of the print processing result in advance based on the print data stored by said intermediate data converting module ~~created by processing of said data creation module~~ and processing conditions; and

a job creation module that creates the print job based on the intermediate code format data stored by said intermediate data converting module,

wherein said preview display controlling module displays the preview image reflecting the inversion process to be executed by the printing apparatus, and said job creation module creates the print job on which the inversion process has been not executed, in a case where said detection module detects the setting of the inversion process function.



22. (Currently amended) The storage medium according to claim 21,  
further comprising:  
an editing module that edits the data stored and converted to the  
intermediate code format data by said intermediate data converting module or processing  
conditions of said print data; and  
a data creating module that creates print data and processing conditions that  
implement print processing different from the print data created by said application based  
on the data edited by said editing module,  
wherein when a plurality of intermediate code format print data is stored,  
said editing module combines said plurality of intermediate code format print data into a  
single combined job.

23. (Original) The storage medium according to claim 21, wherein said  
preview display control module acquires layout information from said stored intermediate  
code format data and performs processing to preview said print processing result based on  
said layout information.

24. (Currently amended) The storage medium according to claim 22 [[21]],  
wherein when a mirroring condition is specified for said stored intermediate code format  
data, said preview display control module makes it possible to preview the data in a  
mirrored display format based on the editing result from said editing module.

25. (Currently amended) The storage medium according to claim 22 [[21]], wherein when color inversion is specified for said stored intermediate code format data, said preview display control module makes it possible to preview the data in a color-inverted display format based on the editing result from said editing module.

26. (Currently amended) The storage medium according to claim 22 [[21]], wherein when said editing means combines a plurality of jobs, said preview display control module makes it possible to present a preview in a display format in which said combined job is displayed as a single job.

27. (Currently amended) The storage medium according to claim 22 [[21]], comprising a print data control module that judges whether the print data is created by said application or by processing of said data creation module and controls the output destination of the print data.

28. (Original) The storage medium according to claim 21, wherein said print data control module releases the occupation of the application after said intermediate data conversion module stores the converted data.

29. (Original) The storage medium according to claim 21, wherein said intermediate code format data converted by said intermediate data conversion module is data that can be edited in accordance with expansion, contraction, layout display, mirroring and color inversion.

30. (Original) The storage medium according to claim 22, wherein in the processing of combining the print data by said editing module, the stored data is identified based on identification information obtained by adding an ID to identify the stored data to the logical page ID of said stored data.

31. (Currently amended) An information processing apparatus that creates print data, comprising:

spooling means for storing print data created by an application;

determining means for determining whether mirroring or color inversion is specified as the print setting for said print data;

preview display controlling means for, when said determining means determines that mirroring or color inversion is specified, creating mirrored or color-inverted display data based on the print data stored in said spooling means and presenting a preview,

wherein in a case where the mirroring is specified as the print setting for said print data and a binding margin is specified, said preview display controlling means creates mirroring data used for displaying after adjusting the binding margin setting, and

wherein the binding margin is kept to the same side before and after adjusting the binding margin setting.

32. (Original) The information processing apparatus according to claim 31, wherein when mirroring is specified as the print setting for said print data and a binding margin is also set, said preview display controlling means creates mirrored display data after adjusting the binding margin setting.

33. (Original) The information processing apparatus according to claim 31, further comprising binding margin determining means for determining whether the binding margin setting should be adjusted or not when mirroring is specified as the print setting for said print data and a binding margin is also set,

wherein when said binding margin determining means determines that the binding margin setting should be adjusted, said preview display controlling means creates mirrored display data after adjusting the binding margin setting.

34. (Original) The information processing apparatus according to claim 31, wherein the mirroring is specified as the print setting or said print data and a Nup setting for placing N logical pages on one physical page is made, said preview display controlling means creates mirrored display data after adjusting the Nup page order.

35. (Original) The information processing apparatus according to claim 31, further comprising Nup page order determining means for determining whether the Nup page order should be adjusted or not when mirroring is specified as the print setting for said print data and a Nup setting for placing N logical pages on one physical page is made, wherein when said Nup page order determining means determines that the Nup page order

should be adjusted, said previews display controlling means creates mirrored display data after adjusting the Nup page order.

36. (Currently amended) An information processing method that creates print data, comprising:

a spooling step for storing print data created by an application;

a determining step for determining whether mirroring or color inversion is specified as the print setting for said print data; and

a preview display controlling step for, when said determining step determines that mirroring or color inversion is specified, creating mirrored or color-inverted display data based on the print data stored in said spooling step and presenting a preview,

wherein in a case where the mirroring is specified as the print setting for said print data and a binding margin is specified, said preview display controlling step creates mirroring data used for displaying after adjusting the binding margin setting, and

wherein the binding margin is kept to the same side before and after adjusting the binding margin setting.

37. (Original) The information processing method according to claim 36, wherein when mirroring is specified as the print setting for said print data and a binding margin is also set, said preview display controlling step creates mirrored display data after adjusting the binding margin setting.

38. (Original) The information processing method according to claim 36, further comprising a binding margin determining step for determining whether the binding margin setting should be adjusted or not when mirroring is specified as the print setting for said print data and a binding margin is also set,

wherein when said binding margin determining step determines that the binding margin setting should be adjusted, said preview display controlling step creates mirrored display data after adjusting the binding margin setting.

40. (Original) The information processing method according to claim 36, further comprising a Nup page order determining step for determining whether the Nup page order should be adjusted or not when mirroring is specified as the print setting for said print data and a Nup setting for placing N logical pages on one physical page is made, wherein when said Nup page order determining step determines that the Nup page order should be adjusted, said preview display controlling step creates mirrored display data after adjusting the Nup page order.

41. (Currently amended) A storage medium that stores a program module for a computer to execute an information processing method for creating print data, said program module comprising:

a spooling module for storing print data created by an application;

a determining module for determining whether mirroring or color inversion is specified as the print setting for said print data;

a preview display controlling module for, when said determining module determines that mirroring or color inversion is specified, creating mirrored or color-inverted display data based on the print data stored in said spooling module and presenting a preview,

wherein in a case where the mirroring is specified as the print setting for said print data and a binding margin is specified, said preview display controlling module creates mirroring data used for displaying after adjusting the binding margin setting,

wherein the binding margin is kept to the same side before and after adjusting the binding margin setting.

42. (Original) The storage medium according to claim 41, wherein when mirroring is specified as the print setting for said print data and a binding margin is also set, said preview display controlling module creates mirrored display data after adjusting the binding margin setting.

43. (Original) The storage medium according to claim 41, further comprising a binding margin determining module for determining whether the binding margin setting should be adjusted or not when mirroring is specified as the print setting for said print data and a binding margin is also set,

wherein when said binding margin determining module determines that the binding margin setting should be adjusted, said preview display controlling module creates mirrored display data after adjusting the binding margin setting.

44. (Original) The storage medium according to claim 41, wherein when mirroring is specified as the print setting for said print data and a Nup setting for placing N logical pages on one physical page is made, said preview display controlling module creates mirrored display data after adjusting the Nup page order.

45. (Original) The storage medium according to claim 41, further comprising a Nup page order determining module for determining whether the Nup page order should be adjusted or not when mirroring is specified as the print setting for said print data and a Nup setting for placing N logical pages on one physical page is made, wherein when said Nup page order determining step determines that the Nup page order should be adjusted, said preview display controlling module creates mirrored display data after adjusting the Nup page order.

46. (Currently amended) A computer-program, which is ~~[[are]]~~ executed by a computer, comprising:

a spooling step for storing print data created by an application;

a determining step for determining whether mirroring or color inversion is specified as the print setting for said print data;

a preview display controlling step for, when said determining step determines that mirroring or color inversion is specified, creating mirrored or color-inverted display data based on the print data stored in said spooling step and presenting a preview,



wherein in a case where the mirroring is specified as the print setting for said print data and a binding margin is specified, said preview display controlling step creates mirroring data used for displaying after adjusting the binding margin setting, and wherein the binding margin is kept to the same side before and after adjusting the binding margin setting.

47. (Original) The computer-program according to claim 46, wherein when mirroring is specified as the print setting for said print data and a binding margin is also set, said preview display controlling step creates mirrored display data after adjusting the binding margin setting.

48. (Original) The computer-program according to claim 46, further comprising a binding margin determining step for determining whether the binding margin setting should be adjusted or not when mirroring is specified as the print setting for said print data and a binding margin is also set,

wherein when said binding margin determining step determines that the binding margin setting should be adjusted, said preview display controlling step creates mirrored display data after adjusting the binding margin setting.

49. (Original) The computer-program according to claim 46, wherein when mirroring is specified as the print setting for said print data and a Nup setting for placing N logical pages on one physical page is made, said preview display controlling step creates mirrored display data after adjusting the Nup page order.

50. (Original) The computer-program according to claim 46, further comprising a Nup page order determining step for determining whether the Nup page order should be adjusted or not when mirroring is specified as the print setting for said print data and a Nup setting for placing N logical pages on one physical page is made, wherein when said Nup page order determining step determines that the Nup page order should be adjusted, said preview display controlling step creates mirrored display data after adjusting the Nup page order.